Costa Rica Journal

February 8 - 18, 2003

2/8 - Sea/Tac - Dallas/Ft. Worth ———— Late arrival San Jose CR

Late drive to out skirts of San Jose to the Xandari & Villas - beautiful (gun shots late in night)

2/9 - R & R day - unpack - hike - spa - excellent food - chill day

2/10 - Hook up with our friend Ricardo Rojas Jr - we met Ricardo, Lucho & Gretchen on our trip to the Rome for the 1998 World Equestrian Games along with Fred & Susie from Maui & Jeremy Beale who put the trip together with his friends. It was our year of The Horse where we continued on to Germany and the Hanoverian Verden Auction & bought Markus and saw many competitions. Ricardo then took us to his Equestrian Jumping Facility - there he rode his horse Cashier. From there we went to his outstanding Equestrian Dressage facility -where he rode his 12 yr old Welsh horse (the first Hanoverian in Costa Rica) had lunch with the farm owner Juan. Then drove up to Barva where Lucho (flaming red hair), Gretchen and family had their farm Gecko's stables. More food and vino and son Andreas rode beautiful Dressage horse - Magnifico Ranchero!

2/11 - Met Ricardo in San Jose at his penthouse in the National Theatre colonial building - most beautiful home - (a story in itself - a family history that dates back to the first families of Costa Rica). We then picked up

Gretchen & Lucho - drove to Taratlba where Ricardo's sister (Rocio) & husband take care of one of the family farms - thousands of hectares out across a mountainside, producing coffee/sugar cane and a Macadamia nuts plantation. Lunch at their Grande Casa then took us on tour and show set up for us ho how they produce and sell coffee beans brown sugar today and also how they did it in the old days. We then drove over to the Atlantic ocean side of the Costa Rica - very different feel - much more like the Caribbean - very laid back beach life. Great afternoon, then we started our way back to San Jose - Ricardo's Land Rover blew a belt - stranded on side of the road but help came - another adventure. On to hotel Xandari Villa - what a day!!

2/12 - Leaving San Jose we drove across the country to Playa Jaco staying at Hotel Villa Caletas on the Pacific Coast - beautiful place. On the way we stopped and hooked up with fantastic Freddie for a private guided bird tour Carara National Park - Scarlet Macaws, Boat-bill Heron & many other!! Great day - great adventure! Ready for bed!

2/13 - Villa Caletas pick up guide Johnny - great story teller - surfer - head out from Playa Jaco one hour drive down coast to Quepos and Manuel Antonio National Park - beaches, hike, sloths, monkeys, birds, bats & lunch. Johnny took us to his home to meet his family and a baby Margay he was rehab'ing.

2/14 - Flew from Quepos to Palmar Sur International Airport - small four seater plane - dirt runway - terminal was a 6'X12' piece of sheet metal covering a wooden bench. News at airport was two people died yesterday

in Corcovado National Park where we were going for the next leg of our journey. One person killed by a Croc that they tried to save - the other bitten by a poisonous water snake - neither made it? We then headed out for a 45 minute rough bus ride which took us to the Sieripa River - where we took a hour an a half boat ride down the river out to the ocean & made a surfing landing on the shore at the Casa Corcovado Jungle Lodge - it's the real deal - it's the Jungle!! The sounds, smells, foliage, trees, light, accommodations - all day & all night immersed! Love it!

2/15 - 6am breakfast & launch out on our first Jungle excursion - words can't describe the beauty of the Jungle!! Hot & 100% humidity but oh it's amazing - countless birds - snakes viper & boa - giant city of leaf cutter ants 3 feet wide as far a you could see a path through the jungle floor - howler monkeys - toucans - hour glass (four separate wings like a helicopter in each direction) dragon fly - swans in the river at the waterfall pond with lunch & a swim - scarlet macaws swirling over head - two mating in tree and fall to the ground - hike back down to the beach - Best Joke of the Day - our female guide Monica stops me looking out over surf and asks "Steve what are those birds? I tell her Hugh flock if Brown Pelicans, she says No, that's the Costa Rica Air Force". We learn that the country of Costa Rica has no military, no army, no navy, no air force - none!! They don't believe in War! Peace & Love! Back to casa - relaxed at pool - dinner & sleep - Wow, what a day!

2/16 - Arose to a fantastic fruits & breakfast - dive day - Cano Island - 45 minute boat ride out big swells and rough seas - switched boats - Cathy not feeling well - boat very crowded, very unprofessional crew & outfit -

didn't go well - worst dive we've ever been on & should never have been out! Visibility 10' and at time could not see your hand - at that point you loose time & space - vertigo don't know up or down - very strong surge & currents. Cath never came down as the dive master took me to bottom - with hand signs told me to wait he went to find Cathy my dive partner - Cathy up in the pounding 20-30 waves felt lost - finally found her and got back on boat - I'd have to say near panic because of stuck on bottom, amount of time gone by & no visibility - you do not rush to the surface diving - don't know what's up with Cathy? Incredibly bad experience - in the end we were both back on boat and wanted this dive trip over. Finally back to the beach and our casa. This was our final night in the Jungle and at Casa Corcovado Jungle Lodge - the hotel had an amazing dinner & celebration to say good-bye.

2/17 - The long journey home - begins with long boat ride out over ocean to the Sierpe River - then down river to a waiting bus for another long ride to the Palmar Sur International Airport - plane two hours late and we finally arrive in San Jose. Taxi to a very nice Marriott for a shower, dinner and bed.

2/18 - Depart San Jose - Dallas/Ft Worth - Sea Tac and we're on our way to JP Loop. Always nice to be back home with our dog! What a trip!

Costa Rica List

Birds

Amazon Kingfisher
American Oystercatcher

Bank Swallow
Baird's Trogon
Bare-Throated Tiger-Heron
Barn Swallow
Barred Woodcreeper
Bay-Headed Tanager
Belted Kingfisher
Black and White Hawk-Eagle
Black Hawk-Eagle
Black Vulture
Black-Bellied Whistling Duck
Black-Hooded Antshrike
Black-Necked Stilt
Black-Throated Trogon
Blue-Crowed Motmot
Blue-Crowned Manakin
Blue-Gray Tanager
Boat-Billed Heron
Broad-Winged Hawk
Bronzed Cowbird
Brown Booby
Brown Jay
Brown Pelican
Buff-Rumped Warbler
Buff-Throated Saltator
Cattle Egret
Chestnut-Bellied Heron
Chestnut-Mandibled Toucan
Chestnut-Sided Warbler
Cinnamon Hummingbird
Clay-Colored Robin

Cliff Swallow
Common Black-Hawk
Common Ground-Dove
Common Pauraque
Common Potoo
Dotted-Winged Antwren
Dusky Antbird
Dusky-Capped Flycatcher
Fiery-Billed Aracari
Giant Cowbird
Glossy Ibis
Golden-Naped Woodpecker
Gray Hawk
Gray-Chested Dove
Gray-Headed Chachalaca
Gray-Headed Manakin
Gray-Rumped Swift
Great Blue Heron
Great Egret
Great Frigatebird
Great Green Macaw
Great Kiskadee
Great Tinamou
Great-Tailed Grackle
Green-Backed (Green) Heron
Harpy Eagle
Hoffmann's Woodpecker
House Sparrow
House Wren
Inca Dove
King Vulture
Lesser Swallow-Tailed Swift
Lineated Woodpecker

Little Blue Heron
Little Hermit
Long-Billed Curlew
Magenta-Throated Woodstar
Magnificent Frigatebird
Masked Tityra

Mealy Parrot
Northern (Baltimore) Oriole
Northern Harrier
Northern Jacana
Olivaceous Woodcreeper
Orange-Chinned Parakeet
Orange-Crowned Warbler
Osprey
Pale-Billed Woodpecker
Pale-Breasted Spinetail
Palm Tanager
Parkinson's Petrel

Prairie Warbler

Purple Gallinule
Purple-Throated Mountain-Gem
Red-Billed Pigeon
Red-Billed Tropicbird
Red-Footed Booby
Red-Legged Honeycreeper
Red-Lored Parrot
Riverside Wren
Roadside Hawk
Roseate Spoonbill
Rufous Piha
Rufous-and-White Wren
Rufous-Collared Sparrow
Rufous-Tailed Jacamar
Rufous-Tailed Hummingbird
Scarlet Macaw
Scarlet-Rumped Cacique
Scarlet-Rumped Tanager
Scintillant Hummingbird
Sealy-Breasted Hummingbird
Smooth-Billed Ani
Snowy Egret
Solitary Eagle
Spotted Sandpiper
Squirrel Cuckoo

Summer Tanager
Tennessee Warbler
Tree Swallow
Tropical Kingbird

Tropical Mockingbird
Turkey Vulture
Violaceous Trogon
Whimbrel
White Hawk
White Ibis
White-Crowned Parrot
White-Throated Spadebill
White-Tipped Dove
White-Winged Dove
Wing-Banded Antbird
Wood Stork
Wood Thrush
Yellow-Bellied Flycatcher
Yellow-Crowned Euphonia
Yellow-Crowned Night-Heron
Yellow-Headed Caracara
Yellow-Tailed Oriole

Yucatan Woodpecker

Wildlife

White Face Monkey (2ned smartest monkey next to Chimpanzee)

Squirrel Monkey

Howler Monkey

Aguti - (large rodent)

Cayman

Crocodile

White nosed Coati

Raccoon

Margay Cat

Two-toed Slot

Amarillo

Jesus Christ Lizard

Iguana

Three-toed Sloth Hog Nose Bat

Fruit Eating Bat

Boa Snake

Pit Viper Snake

Masked Frog

Fire Flies (neon Green lite very long time)

Hour Glass Dragon Fly

Owl Butterfly (large size of a hand with what looks like two owl eyes)

Iridescent Blue Wing Butterfly - (each wing the size of three fingers)

Doxocopa Linda Plesaurina Butterfly (flocks)

Cano Island dive - school of Manta Rays jumping out of the water

Many Turtles - White tipped Sharks - school Spotted Bluefin Jack - Dog Snapper - Blue Dog Snapper - schools of Rainbow Fish

Wildlife of Costa Rica

The **wildlife of Costa Rica** comprises all naturally occurring animals, fungi and plants that reside in this Central American country. Costa Rica supports an enormous variety of wildlife, due in large part to its geographic position between North and South America, its neotropical climate, and its wide variety of habitats. Costa Rica is home to more than 500,000 species, which represent nearly 5% of the species estimated worldwide, making Costa Rica one of the 20 countries with the highest biodiversity in the world. Of these 500,000 species, a little more than 300,000 are insects.[1]

One of the principal sources of Costa Rica's biodiversity is that the country, together with the land now considered Panama, formed a bridge connecting the North and South American continents approximately three to five million years ago. This bridge allowed the very different flora and fauna of the two continents to mix.[2]

Biodiversity

Costa Rica is considered to possess the highest density of biodiversity of any country worldwide.[3] While encompassing just one thirtieth of a percent of Earth's landmass, Costa Rica contains four percent of species estimated to exist on the planet.[4] Hundreds of these species are endemic to Costa Rica, meaning they exist nowhere else on earth. These endemic species include frogs, snakes, lizards, finches, hummingbirds, gophers, mice, cichlids, and gobies among many more.[5]

Costa Rica has three UNESCO World Heritage Sites that are all natural assets and are as follows:

The Talamanca Mountain Range – La Amistad Reserves / International Friendship Park (declared in 1983)

The Isla del Coco National Park (declared in 1997)
The Guanacaste Conservation Area (declared in 1999).

Costa Rica's biodiversity can be attributed to the variety of ecosystems within the country. Tropical rainforests, deciduous forests, Atlantic and Pacific coastline, cloud forests, and mangrove forests are all represented throughout the 19,730 square miles of Costa Rica's landmass.[6] The ecological regions are twelve climatic zones. This variation provides numerous niches which are filled by a diversity of species.

Benefits for humanity

Costa Rica demonstrates biodiversity conservation for developing countries. Over twenty-seven percent of the country's land has a protected status as national parks, wildlife refuges, forest preserves, and more.[7] The Costa Rican government is active in protecting its biodiversity for the ecological services they provide. The government imposes a five percent tax on gasoline to generate revenue to pay landowners to refrain from clear-cutting on their land and instead to create tree plantations. This provides Costa Ricans, or "Ticos" as they call themselves, incentive to become active tree farmers instead of cattle ranchers.[8] Tree farms provide some habitat for wildlife, enabling some measure of biodiversity to remain in these areas despite humans' use of these natural resources.

Costa Rica's biodiversity contributes to the numerous ecological services the environment provides. Every aspect of the ecosystem from the different species of plants to the diversity of animal species contributes

to natural services like water purification, provision of food, fuel, fiber, and biochemicals, nutrient cycling, pollination and seed dispersal, and climate regulation, just to name a few.[9] As the diversity of species increases, more of these services can be provided and to a greater extent.

Biodiversity has contributed to the economy of Costa Rica. Ecotourism brings in 1.92 billion dollars in revenue for the country.[10] Ecotourism is defined as "tourism directed toward exotic, often threatened, natural environments, especially to support conservation efforts and observe wildlife". Costa Rica's abundant biodiversity makes the country an attractive destination for ecotourism. Thirty-nine percent of tourists cite nature as their primary reason for visiting the country.[11] The profitable industry of ecotourism entices businesses to capitalize on natural resources by protecting and preserving them rather than consuming them.

Threats to biodiversity

Threats to Costa Rica's biodiversity include a rapidly growing human population, developing coastlines for the industry of tourism and harmful agricultural practices all contributing to pollution and environmental degradation. The practice causing the largest concern for Costa Rica's environment is deforestation. Costa Rica has the fourth highest rate of deforestation in the world. Almost four percent of its current forested lands are cut each year. Clearing land for cattle ranching is the most common cause of deforestation. This form of environmental damage along with the farming of monocultures leads to areas where only a few species of plants are present. Ultimately, decreases in plant diversity leads to decreased animal diversity.[12]

Introduced Species and Climate Change

In recent decades, there has been growing concern about the impact of introduced and invasive animal and plant species outside their natural

habitat, particularly on small oceanic islands where the impact is often more severe due to biogeographic reasons. This phenomenon also significantly affects continental areas. The introduction and invasion of these species are key components of human-induced global environmental changes, accelerated by increased travel and the global economy. The speed of these invasions today is notable, facilitated by climate change and habitat destruction. For instance, many

horticultural species are now successfully cultivated much farther north than their known natural ranges, revealing the adaptability and expansion of these species. In this context, management strategies must consider the presence of these "new" species, evaluating whether they should be eradicated, tolerated, or even integrated to enrich the local flora and support ecological restoration. Costa Rica clearly illustrates this phenomenon since the 16th century, where some introduced plants have had significant socioeconomic and environmental impacts. These species continue to arrive and establish themselves, some as invaders. A recent study published in the UNED Journal Research (https:// revistas.uned.ac.cr/ind ex.php/cuadernos) documented over 980 introduced plant species in the country. This situation underscores the complexity of managing the coexistence of native and alien species in a changing context.[13]

Insects

Butterflies and moths

There are about 1,251 species of butterflies and at least 8,000 species of moths. Butterflies and moths are common year round but are more present during the rainy season. Ten percent of known butterfly species worldwide reside in Costa Rica.[14]

Costa Rican butterflies and moths have made amazing adaptations to the environment. Some examples of these are the following:

Swallowtail caterpillars imitate bird droppings and many others have bright colours to warn predators of bodily toxins.

What someone could easily mistake for a butterfly, a wasp, or a leaf in Costa Rica might be a moth engaging in Müllerian or Batesian mimicry.

Ecotourism is one of Costa Rica's primary economic resources, and the country's butterflies add a lot to that. They bring life to tropical forests, not only with the diversity in colour, but with the magnificence of the flowers that they help pollinate.

Some common butterflies and moths in Costa Rica include:

Thoas swallowtail

Marpesia berania Doxocopa laure Banded peacock Zebra longwing

The zebra longwing butterfly

The *Heliconius doris* butterfly

Morpho butterfly Green page moth Glasswing

Some notable insects in Costa Rica are stingless bees and sweat bees such as *L. figueresi and L. aeneiventre*, ants such as leaf-cutter ants and army ants, Hercules beetle, and many katydids.

Other invertebrates

Invertebrate species make up most of Costa Rica's wildlife. Of the estimated 500,000 species, about 493,000 are invertebrates (including spiders and crabs). It is known that there are tens of thousands of insects and microscopic invertebrates in every land type and elevation level. However, they are largely unnoticed or unidentified.

There are known 183[15] species and subspecies of terrestrial gastropods from Costa Rica and numerous freshwater gastropods and bivalves.

Amphibians

Costa Rica is home to around 175 amphibians, 85% of which are frogs. Frogs in Costa Rica have interesting ways of finding fishless water to raise their young in. Fish, of course, will eat tadpoles and eggs. Poison dart frogs put their eggs in water pools in bromeliads. Other methods

include searching ponds before laying eggs, and laying eggs in wet soil. There are 35 species of *Elutherodoctylus* frogs, 26 species of *Hyla* frogs and 13 species of glassfrogs.

Notable frog species in Costa Rica include red-eyed tree frog, a few species of poison dart frogs, the semitransparent glassfrogs, and the large smoky jungle frog. Some other notable toad species in Costa Rica include the ten species of *Bufo* toads and the giant toad, a huge toad known for its wide appetite. It has been documented eating almost anything, including vegetables, ants, spiders, any toad smaller than itself, mice, and other small mammals.

Besides the frog species, approximately 40 species of lungless salamander and two species of caecilian are found in the country, both rarely seen and little known. Costa Rican amphibians range in size from the rainforest rocket frog, at 1.5 cm (0.5 in), to the giant toad, at up to 15 cm (6 in) and 2 kg (4.4 lb).

Representatives of all three orders of amphibians - caecilians, salamanders, and frogs and toads - reside in Costa Rica. Due to environmental degradation and the sensitive nature of amphibians to pollution, Costa Rica has seen declines and even extinctions in amphibian populations. Monteverde Cloud Forest Reserve is a critical habitat for certain species of the order Anura. However, forty percent of the members of this order that reside in this reserve are estimated to have gone extinct since 1987. This equals twenty species of frogs and toads. [16]

A red-eyed tree frog (*Agalychnis callidryas*)

The highland-dwelling golden toad, *Bufo periglenes*, has not been witnessed in its highly restricted habitat of the central mountain ranges of Costa Rica since 1989. Within one year, the number of juveniles counted at their most prevalent breeding site declined from over 1,500 individuals to only one. The International Union for Conservation of Nature (IUCN) declared the golden toad endangered, but it is likely extinct due to the lack of sightings since over two decades ago. Suspected causes for the toads probable extinction include a combination of intense El Nino weather patterns which resulted in a drought, increased pollution added to the environment, climate change, and an invasive fungal species, Chiriqui harlequin.[16]

Amphibians in Costa Rica have acquired many adaptations for survival. Some frog species, especially those of the poison dart frogs, have learned to lay eggs in water devoid of predatory fish. For some species this means laying eggs in small collections of water in the leaf litter, then transporting the eggs to bromeliads. Other species have adapted the ability of direct development. This means that the frog develops completely inside the egg without transitioning to the tadpole phase. This decreases vulnerable exposure to predators and the frog emerges from its egg as a froglet, much better equipped to protect itself.[17]

Reptiles

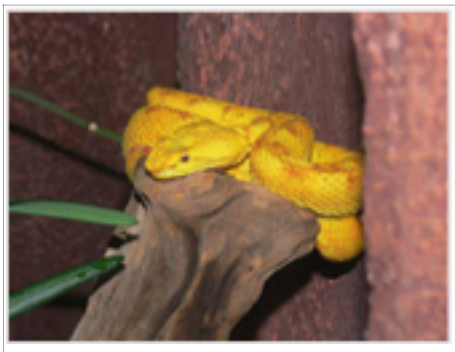
Approximately 225 types of reptiles are found in Costa Rica. This includes over 70 species of lizards, mostly small, forest-dwelling anoles. Large lizards such as the striped basilisk, black iguana, and green iguana are probably the country's most regularly encountered reptiles. Snakes number about 120 species in the country, including 5 powerful boas and a wide diversity of harmless colubrids.

There are about 20 venomous snakes, including colorful coral snakes and various vipers such as the common eyelash viper and two formidable, large bushmasters. The venomous snakes of Costa Rica are often observed without issue if given a respectful distance.

Among turtles, five of the world's seven species of sea turtles nest on the nation's beaches. Two crocodilians, the widespread spectacled caiman and the large, sometimes dangerous American crocodile are found in Costa Rica. The country's reptiles range in size from the delicate 15 cm (6 in) Hallowell's centipede snake of the genus *Tantilla* to the hulking leatherback turtle, at 500 kg (1100 lb) and 150 cm (60 in).

Mammals

The golden toad, an amphibian once endemic to Costa Rica, is now extinct.



Eyelash viper (*Bothriechis schlegelii*)

Costa Rica is home to nearly 250 species of mammal. Medium-sized forest-dwelling mammals are often the most appreciated mammalian fauna of the country. These include four species of monkeys such as the frantic white-headed capuchin and noisy mantled howlers; two species of sloths; the opportunistic white-nosed coati; and the fierce predator, the tayra.

Bats comprise more than half of the mammal species in the country, unusually outnumbering rodents twice over. Bats are adapted to various foraging methods and foods; including nectar, fish, insects and parasitized
blood, as the case with the infamous vampire bats. Prominent bats include
the tiny, communal roosting Honduran white bat and the huge, predatory spectral bat, the largest New World bat. Large fauna, such as tapir, jaguar,
and deer are rarely encountered, being both elusive and tied to now-fragmented undisturbed habitats. Costa Rican mammals range in size from
the 3-gram thumbless bat of the family Furipteridae to the 250 kg (550 lb) Baird's tapir.

Anteaters are common in lowland and middle elevation throughout Costa Rica. The most commonly seen of Costa Rica's three anteaters species is the northern tamandua. The giant anteater is huge and endangered. The other anteater is the silky anteater.

Wild cats

Wild cats that exist in Costa Rica are: jaguars, ocelots, pumas, jaguarundi, margays, and little spotted cats.

Most big cats in Costa Rica are nocturnal or hide in trees in the rainforest like the margay. The most likely place to find a big cat is in the Simon Bolivar Zoo in San José, Costa Rica where there is a selection of

all the native big cats along with other animals. Ocelots usually hunt on the ground at night and rarely climb trees. An ocelot's diet consists of birds, monkeys, rats, and other small animals. The little spotted cat is the smallest wild cat and does not grow bigger than a house cat. They live in cloud forests up to 3200 m.

The jaguar is the largest wild cat in Costa Rica and can grow up to 2 m. They are very rare in Costa Rica and their numbers continue to decline drastically. The jaguarundi looks like a cross between a weasel and a cat. It is plain grey with a sleek body, hunts day and night, and has adapted best to human changes. The margay spends most of its life in trees. The puma is the second largest cat in Central America and its fur is brown and unspotted.

Birds

941 bird species have been recorded in Costa Rica (including Cocos Island), more than all of the United States and Canada combined. More than 600 of the Costa Rican species are permanent residents, and upwards of 200 are migrants, spending portions of the year outside of the country, usually in North America. Seven of the Costa Rican species are considered endemic, and 19 are globally threatened. Costa Rica's birds range in size from the scintillant hummingbird, at 2.2 grams and 6 cm (2.4 in), to the huge jabiru, at 6.5 kg (14.3 lb) and 150 cm (60 in) (the American white pelican is heavier, but is an accidental species).

Scarlet macaws are a common species of Costa Rica. Unlike many bird species, macaws form a monogamous breeding pair and mate for life. Both males and females help care for young and raise chicks for up to two years before they fledge. Threats to the macaw include their popularity in the pet trade. One individual can be sold for up to one thousand dollars.

The resplendent quetzal, a trogon with a stunning physical appearance, can also be found in parts of Costa Rica. The bird's

long grey and black tail feathers can stretch up to a meter long and are its defining feature. Resplendent quetzals live in cloud forests and are most active in the canopy. They can be found in several of Costa Rica's parks and reserves, including the Monteverde Cloud Forest, Santa Elena Cloud Forest Reserve, Braulio Carrillo National Park, Poas Volcano National Park, Chirripo National Park, and the Juan Castro Blanco National Park. Resplendent quetzals eat fruit, insects, small frogs, lizards, and snails and have distinctive echoing calls. Unfortunately, the bird is endangered because its cloud forest habitat has been widely destroyed across Central America.

Hummingbird species demonstrate adaptation with bill shape and size. Certain species have specialized bills that allow them to feed from the flowers of certain species of plants. The relationship between the hummingbird and plant is mutualistic because the hummingbird transfers pollen between plant individuals in exchange for nectar. Because different species of hummingbirds are adapted to specific plants, [pollination] of the right plants with the right pollen is ensured.[18] The mangrove hummingbird is endemic to Costa Rica and specializes in feeding from the tea mangrove plant.

Costa Rican officials have explored the possibility of shutting down their national zoos in an effort to demonstrate a more advanced appreciation for the wildlife in their country.